VANDERSTEEN

$5.00

Thank-you for choosing the Vandersteen Model 3A loudspeaker system. With proper care, your new speakers will provide many years of trouble free, high-quality sonic enjoyment.

The Model 3A is a high-technology product; we recommend that you carefully read this entire manual prior to connecting or using your new loudspeakers.

Vandersteen Audio

The Vandersteen Audio Model 3A is a floor standing dynamic loudspeaker developed and refined by almost twenty years of advanced research into loudspeaker design. Engineering, construction, and materials far exceeding industry standards have resulted in a reference quality level of performance unmatched even by larger and more costly designs.

The Model 3A is a worthy addition to any high quality music or audio/video system. The innovative first order crossover supports either bi-wire or vertical bi-amp connection. Superb dynamic and transient response guarantees superior performance from records, CDs, video tapes, and laser discs. Custom engineered drivers, built exclusively for Vandersteen Audio, are aligned in a boxless design to maximize each driver's accuracy and musicality. An aesthetically pleasing appearance, incorporating an acoustically transparent grille and an audibly vented top, allows the Model 3A to compliment the decor of your home.

The Vandersteen Audio Model 3A is designed and built in the United States of America.

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OPERATION MANUAL

The Model 3A contains protection circuits that track voice coil temperatures and reduce the current from your amplifier to one or more of the drivers if excessive temperatures are detected. When these devices are activated, the sound of the speaker will change and warning lights behind the front grille will glow. If this occurs, immediately reduce the volume level to allow the components in the speaker to cool down.

Please remember that no protection circuits are 100% effective and that repeated activation could cause the circuits to fail.

Do not connect the speaker wires until the cones and rear braces have been installed according to the instructions included with the braces.

Connecting The Model 3As

The Model 3As are optimized for bi-wiring or vertical bi-amplification. Separate heavy-duty screw terminal inputs for the bass portion and tweeter-midrange portion of the crossover are located on the rear of each speaker.

Bi-Wiring

Bi-wiring uses two speaker cables to connect each speaker to the amplifier. The speaker's internal crossover presents different electrical characteristics to each cable so that one cable carries the signal going to the woofers while the other cable carries the signal going to the midrange and tweeter. The improvements offered by bi-wiring versus a conventional single run of cable can be substantial. They are often large enough that a bi-wire set of moderately priced cable will sound better than a single run of far more expensive cable.

All the speaker cables in a bi-wire set should be the same. While it may be tempting to mix different models of cable to have a cable known for good bass response on the woofers and a different one known for good treble response on the midrange and tweeter, the differing sonic characteristics of the two cables can seriously affect the blending between the woofer and the midrange. The imaging of the speakers may be vague, transparency may be lost and detail and clarity can suffer.

Research has revealed that much of bi-wiring's benefit comes from the physical separation of the bass cable from the midrange/tweeter cable. Four conductor bi-wire cables that combine the wires together in one sheath are better than mono-wiring with an equivalent two-conducter cable, but they do not offer the full advantages of true bi-wiring.

Bi-Amplification

The Model 3As can only be bi-amplified passively with two identical stereo amplifiers, preferably in a vertical configuration. (One stereo amplifier per speaker.) For Model 3A owners that already own two identical stereo amplifiers or can easily acquire a second stereo amplifier that matches the one they have, bi-amplification may offer some advantages over bi-wiring. It should be noted however, that bi-amplification usually offers only slight to moderate sonic improvements over bi-wiring so two lesser amplifiers will normally not outperform a single better amplifier. Unless you already have two identical amplifiers or easy access to a second matching amplifier, you are better off investing in the best single amplifier within your budget rather than dividing your budget between two less expensive and inferior sounding amplifiers.

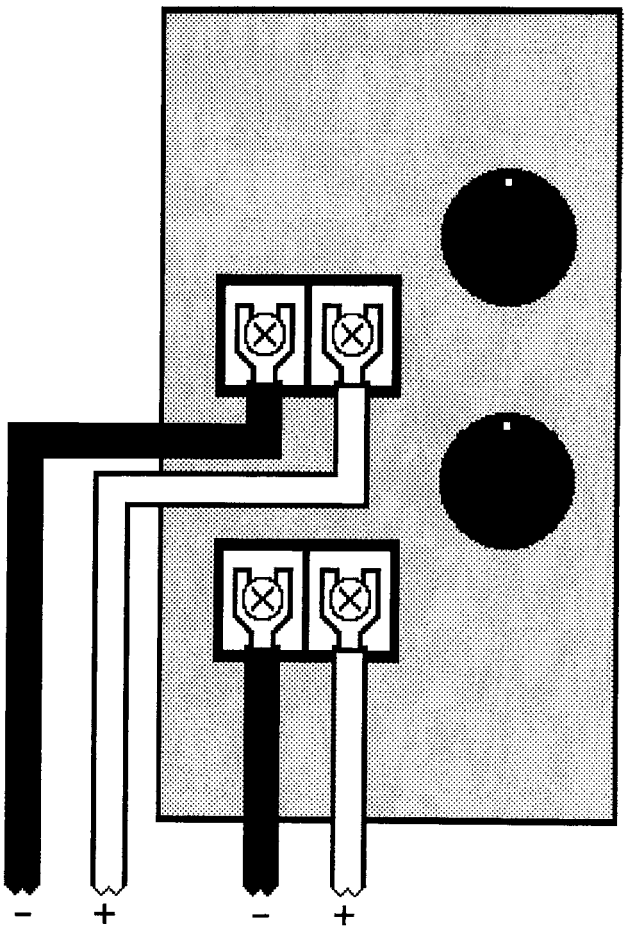
When bi-amplifying, the speaker's internal passive crossover divides the frequencies by presenting different electrical characteristics to each channel of the amplifier. An electronic crossover is not used since the passive crossover in the Model 3A cannot be bypassed. Use of an electronic crossover would result in the two crossovers acting in series and would cause severe phase shift and response non-linearities.

The Model 3As should not be bi-amped with two different amplifier models in a horizontal mode. (One amplifier driving the woofers and the other amplifier driving the midrange and tweeter.) When half of the speaker is driven by a different amplifier model than the other half—and in these cases, usually by amplifiers chosen for the differences in their sounds rather than the similarities—the blending between the woofer and midrange is compromised and the sonic consistency of the speaker is affected. The upper and lower halves of the speaker will exhibit different dynamic characteristics, imaging characteristics, tonal balances and degrees of detail. This will cause considerable sonic confusion through the middle frequencies.

It is easy to connect a cable out of phase when using this connection method. Carefully verify cable polarity at speaker and amplifier.

Bare wires should never come into contact with the aluminum dress plate while the amplifier is on. Amplifier damage could result.

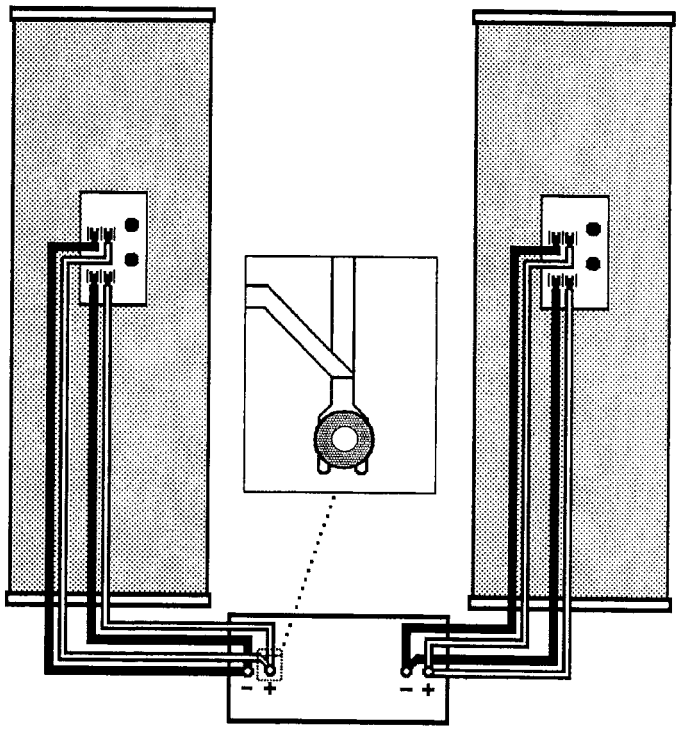
The input screws should be snug, but should not be overtightened.



Bi-Wire Connections

Bi-wiring provides the sonic attributes of bi-amping without the cost and complexity of two stereo amplifiers. Bi-wiring is recommended for all systems using a receiver, integrated amplifier or single stereo amplifier. Four identical runs of equal length speaker cables are required. (Two per speaker.)

1. Crimp and solder spade lugs to the speaker ends of the cables being used to connect the Model 3As.
2. Choose one of the cables as the tweeter/midrange cable. Connect the ground side of the chosen cable under the top left terminal screw and the positive side of the cable under the top right terminal screw.
3. Connect the ground side of the remaining cable under the lower left terminal screw and the positive side of the cable under the lower right terminal screw.
4. Connect both cables in proper polarity to the same set of outputs on your amplifier. If possible, use only one spade lug to connect both cables to each terminal on the amplifier as shown in the enlarged view of an amplifier connection.



For Better Sound

a. All four speaker cables should be the same type and length. While certain different cable types may work well together, using identical cables on the top and bottom insures perfect blending.

b. Use high quality cables and spade lugs. Crimp and solder the spade lugs to the cables.

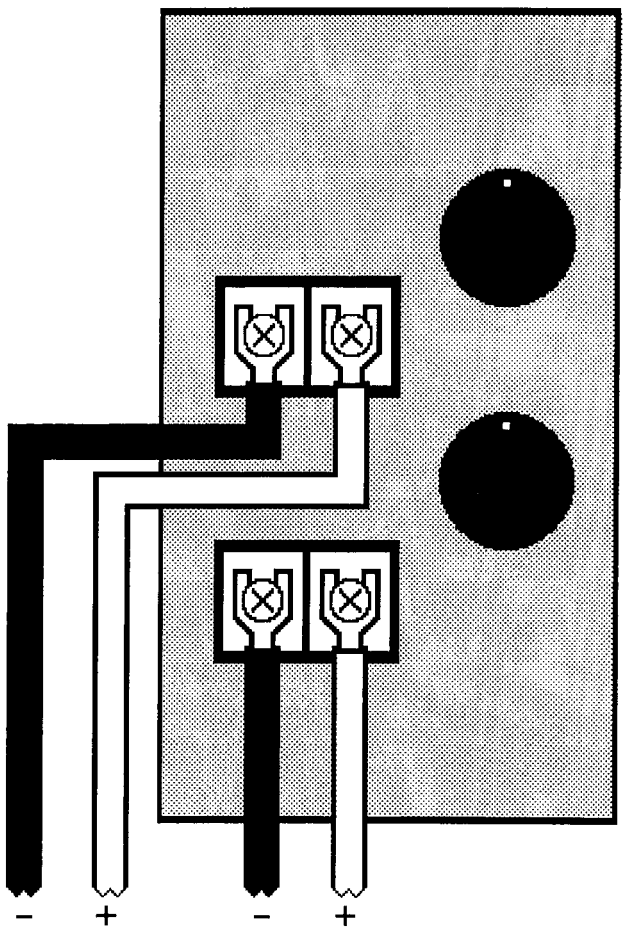
c. If your amplifier has "A" and "B" outputs, use the "A" outputs for both cables. The two sets of outputs may not be electrically identical.

d. If your amplifier has multiple impedance taps, both cables should be connected to the same tap.

This connection method can only be used in a system configured with two identical stereo amplifiers.

Bare wires should never come into contact with the aluminum dress plate while the amplifier is on. Amplifier damage could result.

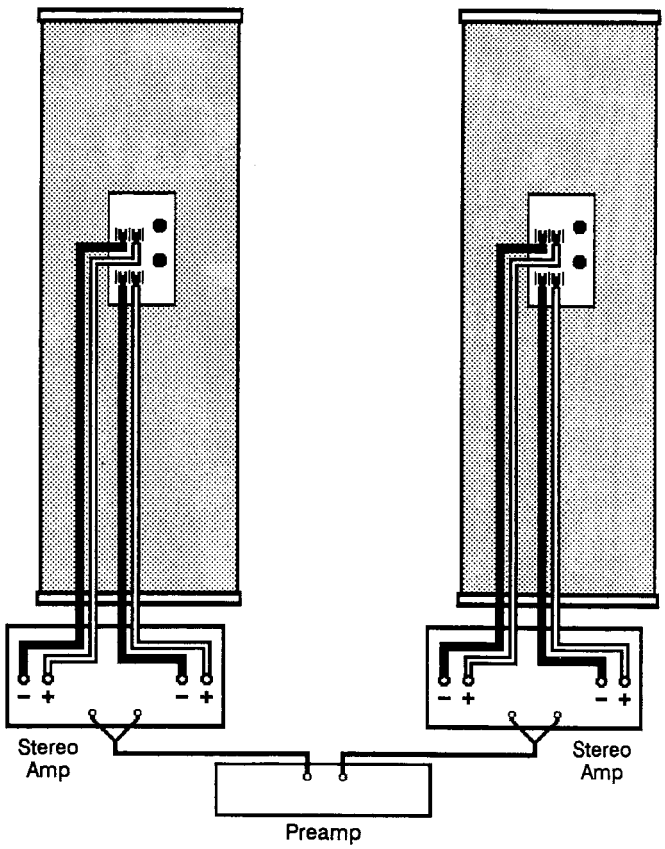
The input screws should be snug, but should not be overtightened.



Vertical Bi-Amp Connections

Vertical Bi-amplification uses a stereo amplifier to drive each speaker. Four identical runs of equal length speaker cables are required. (Two per speaker.)

1. Connect two cables to each speaker as described in steps 1-3 on the previous page.
2. Designate one stereo amplifier as the left channel amplifier and the other identical stereo amplifier as the right channel amplifier.
3. Use high quality single female to dual male "Y" connectors to connect the preamp's left channel output to both inputs of the left amplifier and the preamp's right channel output to both inputs of the right amplifier as shown in the diagram.
4. Connect the bass cable from the left speaker to one output channel of the left amplifier and the tweeter/midrange cable from the left speaker to the other output channel of the same amplifier.
5. Connect the bass cable from the right speaker to one output channel of the right amplifier and the tweeter/midrange cable from the right speaker to the other output channel of the same amplifier.



For Better Sound

a. Verify with the amplifier manufacturer that your amplifiers are the same generation and sound the same.

b. If your amplifiers have multiple impedance taps, both cables should be connected to the same rated taps.

c. All four speaker cables should be the same type and length. While certain different cable types may work well together, using identical cables on the top and bottom insures perfect blending.